

8 center line of the upper sheet made of essentially liquid-
9 impervious material and fastened along or adjacent to a
10 respective longitudinally extending side extremity of the
11 article and comprising a free elastic sealing edge intended to
12 be stretched against the wearer, or 2) above the upper sheet,
13 a top liquid-impermeable sheet which is intended to lie
14 against the wearer, includes elastic for shaping the article
15 to the wearer's body, and includes apertures intended to lie
16 in register with the anus and the urethra orifice of the
17 wearer, around which apertures elastically puckered sealing
18 edges are disposed in the top sheet,

19 an improved sealing ability against the skin of an
20 intended wearer, at a given available elongation, by at least
21 one sealing edge on each side of the center line, comprising
22 modifying or treating the absorbent article in such a way as
23 to cause the absolute value of $\Delta P = 2\gamma \cos\theta_m / r$ for said sealing
24 edge to increase, where γ designates the surface tension of
25 the liquid to be absorbed by suction, r designates the radius
26 of the largest circle that can be encompassed in any pore
27 formed by said sealing edge against the wearer's skin at the
28 given available elongation, and $\cos\theta_m$ is the weighted mean
29 value of $\cos\theta$, where θ is the wetting angle of the liquid to
30 the material in the pore walls, while taking into account the
31 different materials in the walls of this largest pore.

1 16. The method according to Claim 15, comprising causing
2 said absolute value of ΔP to increase at least within a major
3 part of an available elongation range of 20-40%.

1 17. The method according to Claim 15, comprising causing
2 said absolute value of ΔP to increase by at least 5%.

1 18. The method of Claim 15, comprising causing said
2 absolute value of ΔP to increase by at least 15%.

1 19. The method of Claim 15, comprising causing said
2 absolute value of ΔP to increase by at least 25%.

1 20. The method of Claim 15, comprising causing said
2 absolute value of ΔP to increase by at least 35%.

1 21. A method according to Claim 15, comprising causing
2 said pore radius of said sealing edge to decrease at least at
3 an available elongation above 60%.

1 22. A method according to Claim 15, comprising causing
2 said pore radius of said sealing edge to decrease at least at
3 an available elongation above 50%.

1 23. A method according to Claim 15, comprising causing
2 said pore radius of said sealing edge to decrease at least at
3 an available elongation above 40%.

1 24. A method according to Claim 15, comprising causing
2 said pore radius of said sealing edge to decrease at least at
3 an available elongation above 20%.

1 25. The method according to Claim 15, comprising causing
2 the absolute value of $\cos\theta_m$ to increase.

1 26. The method according to Claim 25, comprising
2 treating said sealing edge such that a higher wetting angle of
3 the liquid to the barrier material will be obtained and/or
4 such that a higher wetting angle of the liquid to the skin of
5 the wearer will be obtained within those regions in which said
6 sealing edge lies against the skin when the absorbent article
7 is donned.

1 27. The method according to Claim 15, comprising
2 providing said sealing edge with a layer of material that
3 increases the absolute value of $\cos\theta_m$ and/or that reduces r
4 when the article is donned.

1 28. The method according to Claim 15, comprising causing
2 the absolute value of $\cos\theta_m/r$ to increase.

29. An absorbent article that includes an absorbent body disposed between a liquid-impermeable bottom sheet which is intended to lie distal from the wearer in use, a liquid-permeable upper sheet which is intended to lie proximal to the wearer, and either 1) at least one longitudinally extending liquid barrier on each side of the center line of the upper sheet, made of essentially liquid-impervious material and fastened along or adjacent to a respective longitudinally extending side extremity of the article and including a free elastic scaling edge intended to be stretched against the wearer, or 2) above the upper sheet, a liquid-impermeable top sheet which is intended to lie against the wearer, includes elastic for shaping the article to the wearer's body, and includes apertures intended to lie in register with the anus and the urethra orifice of the wearer, around which apertures elastically puckered sealing edges are disposed in the top sheet where, in respect of at least one scaling edge on each side of the center line of said absorbent body, the absolute value of $\Delta P = 2\gamma \cos\theta m/r$ lies above the line $y = kx + m$, where x designates the available elongation, k has the value $-14/30$ and m has a value in the range of 48 to 69, within the major part of an available elongation range of between 20 and 40%, and where γ designates the surface tension of the liquid to be absorbed, r designates the radius of the largest circle that can be enclosed in any pore formed by said sealing edge

26 against the skin of the wearer at a given available
27 elongation, and $\cos\theta_m$ is the weighted mean value of $\cos\theta$,
28 where θ is the wetting angle of the liquid to the material in
29 the pore walls while taking into account the different
30 materials in the walls of this largest pore.

1 30. The article according to Claim 29, wherein m equals
2 48.

1 31. The article according to Claim 29, wherein m equals
2 51.

1 32. The article according to Claim 29, wherein m equals
2 57.

1 33. The article according to Claim 29, wherein m equals
2 63.

1 34. The article according to Claim 29, wherein m equals
2 69.

1 35. The article according to Claim 29, wherein said free
2 sealing edge includes a layer of a material such that a higher
3 wetting angle of the liquid to the edge material will be
4 obtained and/or such that a higher wetting angle of the liquid
5 to the skin of the wearer will be obtained within those

